Grassetti Environmental Consulting

Environmental Assessment
EIR/EIS Review and Critique
Project Management
Planning and Permitting
Regulatory Process Consulting
Hydrologic/Geologic Analysis

Mr. Bruce Halstead
US Fish and Wildlife Service
1125 16th Street, Room 209
Arcata, CA 95521-5582

Mr. John Munn
California Department of Forestry and Fire Protection
1416 Ninth Street
Sacramento, CA 95814

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SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT FOR THE HEADWATERS FOREST ACQUISITION AND THE PALCO SUSTAINED YIELD PLAN AND HABITIAT CONSERVATION PLAN

Grassetti Environmental Consulting (GECO) was retained by the Environmental Protection Information Center (EPIC) and the Sierra Club to conduct a peer review of the Headwaters Forest Acquisition, and PALCO Sustained Yield Plan (SYP), Incidental Take Permit (ITP) and Habitat Conservation Plan (HCP) Environmental Impact Statement/Environmental Impact Report (EIS/EIR). This letter presents our comments with respect to the adequacy of the EIS/R. These comments are summarized below and detailed in the attached table. In summary:

- Despite its length, the document provides remarkably little actual information on the project area, but rather focuses on describing environmental processes (i.e. biological, hydrological, geomorphologic, and economic processes) and species, etc. It tends to defer project-site specific studies to the future THP stage. Although programmatic EIS/Rs may appropriately defer some analyses to future site-specific environmental reviews, this applies only to impacts that are speculative. The specific comments below point out areas where the EIS/R inappropriately defers analyses of non-speculative impacts. GEC-1

- The document's analytical approach is academic, rather than critical. The analyses do not take a worst case analytical view, but rather a detached view that provides considerable information on processes but generally does not clearly tie the analyses to the conclusions. GEC-2

1536 Scenic Avenue Berkeley, CA 94708 (510) 849 - 2354

- The EIS/R's conclusions appear to have been developed independently of the analyses. They often conflict with the text of the analyses. GEC-3

- Criteria of significance appear to have been developed after the analyses to rationalize findings of insignificance. GEC-4

- Criteria of significance are highly unusual in their high thresholds of significance. They do not fulfill the environmental protection goals or criteria of significance of CEQA and NEPA. GEC-7

- Most of the cumulative impacts assessments do not approach cumulative impacts in an additive or synergistic manner, but rather use this analysis to identify project impacts as proportionally minor and therefore not significant cumulatively. This is in direct contravention of the requirements for cumulative impacts analysis in CEQA and NEPA. In addition, the cumulative impact discussions fail to address past impacts, contrary to CEQA and NEPA requirements. GEC-8

- The document provides good analytical evidence that the No Action Alternative (Alternative 1: no-take under existing ESA provisions) is environmentally comparable or superior to the proposed action. Similarly, the document provides good analytical evidence that the Selective Logging Alternative (Alternative 3) would eliminate many of the proposed action's impacts and concludes that it is the environmentally superior alternative. However, the range of alternatives covered in the document is unduly limited due to the document's erroneous focus on the HCP and not the timber harvesting. GEC-9

Overall, we are particularly concerned with the deeply flawed analytical approach adopted by the EIS/R. This flawed framework begins with the incorrect (and legally impermissible) use of a future baseline instead of existing on-the ground conditions. This tends to make any future reduction of logging intensity look like a benefit, when, in reality, it is just a somewhat less intense 50-year extension of environmentally degrading impacts when compared to implementation of existing Forest Practice Rules (FPR's). Enforcement of the ESA's take provisions, which should be used as the environmental baseline is all but ignored. The analytical errors are compounded by the use of environmentally insensitive significance criteria that fail to reflect either CEQA or NEPA significance criteria guidance. The document further downplays impacts identification by evaluating significance in terms of long-term trends in place of the CEQA- and NEPA-required assessments of short- term and long-term impacts. GEC-10

This lack of critical analysis is compounded by the document's focus on the Habitat Conservation Plan (HCP) as the project rather than the Sustained Yield Plan (SYP) and Incidental Take Permit (ITP). This focus on mitigation over the action being mitigated GEC-11

results in a failure to identify residual impacts on the land, water, and biotic resources, as well as failure to identify an adequate range of alternatives. The document further misses the mark by impermissibly deferring several critical analyses to future mitigation. In addition, many of the analyses included in the document are flawed. Finally, the cumulative impact assessments fail entirely to address past actions, and impermissibly compare project effects to other cumulative effects instead of adding them together. GEC-11 CON.

This approach results in a document that fails entirely to fulfill its required purpose of identifying potentially significant environmental impacts and mitigating them. As such, it also fails to fairly and fully disclose to the public and decision-makers the environmental implications of this project. In short, as detailed in our specific comments below, the document does not come close to meeting CEQA and NEPA requirements. It should be revised and recirculated with these major flaws corrected.

Most of the deficiencies fall into one or more of the general categories outlined below. Therefore, we have summarized the major deficiencies and keyed the specific comments to those master comments. All references to the summary section also apply to the text from which those discussions were derived. All CEQA Guidelines references reflect revised Guidelines as approved by the Office of Administrative Law on 10/26/98.

COMMENT	PAGE #
Master Comments	
1. Inappropriate Deferral of Analysis. Deferral of the Watershed Analyses and other studies (e.g. cultural resource surveys) as mitigation without attendant project-specific performance standards is inappropriate and not permitted under CEQA (see Sundstrom v. Mendocino [202 Cal. App. 3d 296] and Sacramento Old City Association v. City Council of Sacramento [229 Cal. App. 3d 1011]) and NEPA (see Conner v. Burford 848Fed 2d 1441, 1415-57(9th Cir. 1988)).	S-7, 1-10, 2-29; 2-77 through 79; 3.4-47; 3.4-57; 3.6-34, 3.6-35, 3.8-42; 3.9-46; 3.15;-17
2. Erroneous Baseline for Analysis. The EIS/R frequently uses incorrect baselines for CEQA/NEPA impacts assessment. The correct baseline is the existing environmental conditions on the ground at the time the EIS/R is prepared (See CEQA Guidelines, 14CCR Sections 15360, 15125(a), 15125(e) and 15126.2; NEPA,	S-8, S-12 (Hydrology), S-22 (Habitat Fragmentation), S-27 (Streams), S-28

GEC-12

GEC-13

40CFR 1502.15 and 1502.16). The EIS/R, instead, erroneously projects existing forest practices into the future for use as the environmental setting. For example, the EIS/R claims regional benefit to species and habitat from the HCP/SYP. However, on the ground there is no regional benefit of reducing old-growth stands compared with existing conditions. The use of this erroneous baseline severely skews the analyses throughout the document.	(Wildlife). 2-62, 2-66, 2-67, 3.4-45; 3.4-49; 3.14-9, 10; 3.15-19, and most other impact assessment sections.	GEC-13 CON
3. Inappropriate No Project Alternative. The State version of the No Action/No Project alternative is inappropriate because it does not provide a basis for comparison over the full duration of the HCP, and, in the opinion of the NMFS, does not reflect requirements to protect listed species from take (see EIS/R, p. S-8, 2nd column). The No-Project alternative also fails to discuss maintenance of existing conditions as a possible alternative. CEQA Guidelines Section 15126.6(e)(2) states that "The 'no project' analysis shall discuss the existing conditions....as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services". See also CEQA Guidelines Section 15126.6(e)(3) for guidance. The CDF No Project Alternative also fails to provide a comparison with the whole of the action, but rather with only a short-term piece of it (see Guidelines Sections 15378 (a) and (c) for definition of 'Project", which has implications for "no-project"). Because the project itself extends well into the future, so should the alternatives. The argument that this would be speculative is belied by the generation of the Federal No Action (no-take) alternative in compliance with Federal ESA and NEPA requirements. The CDF conclusion that CEQA dose not require a projection into the future that could be deemed speculative is unsupported by CEQA statute or Guidelines; no such language exists in the cited section (15126[d]4.) The only CEQA language regarding speculation (Guidelines Section 15145) applies to impacts analysis, not identification of alternatives.	All impact assessment sections regarding No Action/No Project Alternative.	GEC-14
4. Inappropriate Consideration of "Short-Term" Impacts. CEQA and NEPA require consideration of both short-and long-term impacts. Either can be significant. Short-term impacts are typically construction-type impacts on the order of a few weeks to	S-12, (Hydrology), S-16 (Fish), S-20 (murrelet), S-21 (spotted owl), 3.4-	GEC-15

a few months in duration. In this document, "short-term" is used to address impacts on the order of up to 10-30 years. Impacts of this duration on species with life cycles of 2-10 years would be significant. In addition, the document seems to assume that short-term impacts, in themselves, are not significant (contrary to the requirements of CEQA Section 15126.2), or can somehow be mitigated by long-term "benefits" of the project, contrary to NEPA Section 1508.26(b)(1)). See also Master Comment #2, above. Long-term benefits, if any, may be used as findings for project approval, but do not obviate short-term impacts to the environment. The EIS/R also attempts to skirt the significance of short-term impacts by identifying impacts in terms of long-term trends. While the discussion of trends may be helpful in understanding project impacts, it does not serve the CEQA and NEPA mandates to analyze both long- and short-term project impacts.	55, 3.7-58, 3.8-42, 3.10-89-94, etc.	GEC-15 CON.
5. Erroneous Analytical Focus. The document fails to keep in mind that the "project" and major federal action is not the HCP, but also the ITP and SYP and accompanying logging and related activities. The logging and associated take of species, not the HCP, causes the impacts. The analyses frequently focus on the areas "Protected" by the HCP, and discuss alternatives in terms of which "protects" the greatest acreages, resources, etc. This is an inappropriate focus for this project. The focus should be on the impacts of the logging, road building, and quarrying activities authorized under the SYP and ITP as implemented under the HCP. Thus, the appropriate assessment would be of acres lost, species lost, sediment generated, etc. under the SYP and ITP, not acreage protected.	All impacts analysis sections.	GEC-16
6. Inappropriate Criteria of Significance. Most of the criteria of significance used in this EIS/R are highly unusual and appear to have been established after the fact to avoid any findings of significant impact/effect for the proposed project/action. These criteria fail to comply with criteria established in CEQA Guidelines Appendix G, and Sections 15380 and 15382, as well as USFWS's NEPA Procedures Manual (40CFR Section 550 FW 3.3 B.(2)) The criteria used in the EIS/R also are counter to the expressed environmental protection goals of the state and federal legislatures as codified in CEQA sections 21000 and 21001 (see also No Oil Inc. v. City of Los Angeles), and NEPA section 4331(b).	S-16 (fish), S-21 (sediment), S-26 (Wild Rivers), 3.16-17, 3.4-45, 3.6-30, 3.6-52; 3.10-88-94; 3.11-5; 3.16-17	GEC-17

Specific examples include: Use of the jeopardy standard rather than loss of individual special status species; consideration of only long-term impacts as significant; consideration of thousands of acres of "moderate" sediment delivery as insignificant; consideration of a Visual Quality Objective of "maximum modification" as nonsignificant, etc. In one case (Wild and Scenic Rivers), because no overarching federal standards exist for significance, the analysis fails entirely to assess significance of the project.		GEC-17 con
7. Erroneous Analyses of Cumulative Impacts. Many of the document's cumulative impact analyses fail to properly assess project plus cumulative effects. CEQA and NEPA define cumulative impacts/effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions." 40CFR Section 1508.7 (CEQA Section 15355 contains nearly identical language). The EIS/R consistently fails to include past actions as part of the cumulative impact analysis. Further, it frequently substitutes a *comparison* of the projects effects with cumulative regional impacts instead of the required analysis of project-plus-cumulative impacts. It also inappropriately considers relatively small or minor project contributions to otherwise substantial regional cumulative effects as somehow not significant, in effect diluting the project's impacts by comparison with large-scale regional impacts instead of adding them together, standing the entire concept of "incremental" cumulative impacts on its ear. (See Kings County Farm Bureau et. al. v. City of Hanford (221 Cal. App. 3d 692) and CEQA Guidelines Section 15130(4)(b)).	S-18 (first para.) 3.8-50, 3.10-27, 3.10-157-161 and all other cumulative impacts analyses.	GEC-18
8. Internal Inconsistencies. There are a number of internal inconsistencies in the report, particularly associated with Alternative 1 and with identification of significance of impacts. For example p. S-21 states that the THP consultation process and the application of state Forest Practice Rules (FPRs) should be sufficient to protect priority birds, while NMFS disagrees (p. S-8). Similarly the NMFS conclusions re FPR's protection of coho and other listed species are in direct conflict with CDF beliefs (p. 2-25).	S-21, 2-25, 3.4-36, 3.9-1	GEC-19

In order to serve its function as an environmental protection document (see 10, below), the document should use the more conservative analytical approach.		GEC-19 con.
9. Erroneous Concepts of Mitigation. The EIS/R contains several erroneous assumptions regarding mitigation. First, it assumes mitigation is provided by the purchase of the Headwaters forest property. It assumes that such "reserves" mitigate for large losses in late seral habitat (LSH). It fails to consider that such reserves do not add to existing forests. Therefore a 68% loss of LSH (see p. 3.9-93) is not mitigated by a reserve; it is still a 68% loss, which would be significant. In addition, existing FPRs are assumed to provide adequate mitigation for various impacts (biological resources, land use, visual quality, traffic, cultural resources, etc.). As this has not been the case to date, such assumptions are not reasonable, particularly in a document intended to describe adverse environmental impacts and minimize impacts to environmental resources. Also, mitigation measures requiring only consultation, 'encouraging' actions, or monitoring do not mitigate the project's significant environmental effects and are erroneously assumed to do so in this document.	S-22, S-23(land use, traffic), S-25 (cultural resources), S-26 (Wild Rivers), 1-11	GEC-20
10. Misunderstanding of Purpose of Document. The discussion of the intent of the EIS/R is telling in that it fails entirely to address the document's purpose of disclosure and mitigation and avoidance of impacts. This is counter to CEQA's mandate to identify and prevent environmental damage. (Guidelines Section 15021).	1-5	GEC-21
11. Piecemealing of Project. The analysis of the AB1986 effects should be assessed as part of the overall project, not as an add-on. This constitutes an impermissible piecemealing of the action with respect to CEQA and NEPA. Although discussions have been added to the text re AB 1986, it is treated in lesser detail than the rest of the action.	2-6	GEC-22
12. Inadequate Range of Alternatives. The EIS/R is inadequate because it does not address or explore a reasonable range of alternatives per CEQA Guidelines (CCR Section 15126.6(a)) and NEPA statutes (40CFR Section 1502.14) . These include silvicultural alternatives and aquatic management alternatives. The alternatives (with the exception of Alternative 3) are		GEC-23

unreasonably limited to variations on stream setbacks and preserve size. These changes apply only to relatively small percentages of the overall 210,000-acre site. Additional silvicultural approach alternatives should be developed and analyzed for all of PALCO's holdings (except the Reserve). Further, an alternative should be added that reflects the FEMAT aquatic strategy. (See Jerry Barnes letter submitted under separate cover and hereby incorporated by reference.)		GEC-24
Other Comments		
On Table 2.6-2, Alternative 1 discussion is missing entirely. Master Comments 2, 3, 4, and 6, above also apply to this table.	2-46 through 2-53	GEC-25
According to definition of "take" provided on p. 1-8, timber harvest of unoccupied murrelet habitat, harvest of second growth next to residual stands, and harvest within unoccupied residual stands could constitute a take as it would alter the birds' behavior, deprive them of habitat, and cause abandonment. Therefore the first column of the second paragraph on page 2-54 is incorrect regarding the take discussion, and the alternative should be modified accordingly to avoid take associated with harvest of unoccupied habitat.	2-54	GEC-26
Wetlands discussion needs to clearly identify how many acres would be destroyed by each alternative, and how that destruction is consistent with the federal "no net loss" of wetlands policy.	2-57	GEC-27
For Alternative 2, please explain how a 63% (nearly 40,000 acre) decline in LSH over the HCP period does not constitute a significant impact to natural vegetation.	2-57	GEC-28
For Alternative 4, please explain how a 52% (over 20,000 acre) decline in LSH over the HCP period does not constitute a significant impact to natural vegetation.	2-59	GEC-29
Under Alternative 1, loss of marbled murrelet and spotted owl habitat is a take, therefore this alternative would not comply with ESA requirements, and should be modified to avoid this take.	2-59- 2.6.4.1	GEC-30
See Master Comment #2, above re coho discussion. Baseline for conclusion of beneficial effects to coho appears to be some future	2-60 (and Fisheries section)	GEC-31

application of current management practices rather than existing on-the-ground conditions.

Dr. Peter Moyle, the State's leading expert on coho salmon has submitted comments detailing the inadequacy of the EIR/S's coho analysis. These comments, which are hereby incorporated by reference, include:

- Logging on PALCO lands will certainly result in take of salmon, not only in the sense of temporarily disturbing them at road crossings, etc. but in causing mortality, mainly in the form of decreased survival of embryos and juveniles in response to small but incremental losses of habitat. The result is continued decline of coho populations, eventually to local extinction. Rapid local extinction is possible under the proposed HCP/SYP.

- The Riparian Management Zones (RMZ) are too narrow and allow too much intrusion for logging. The watersheds involved are some of the most fragile/erosible on the Pacific coast and even small losses of stream habitat should not be tolerated to provide for recovery of coho salmon populations.

- For Class I streams, the proposed RMZ management within the three bands suffers from a lack of guarantees that it will in fact allow adequate accumulation of fallen trees in the stream or that it will be able to prevent slumps or other sources of silt from entering the stream. A conservative course of action for the PALCO lands, given their extreme fragility, would base this prescription on twice the site-specific tree height (340 ft), with the no-logging zone being 170 ft.

- For Class II streams the RMZ prescription is not restrictive enough to avoid harming coho salmon. Despite the implication that Class II streams are fishless, many streams placed in this category contain juvenile coho salmon at least seasonally, especially in winter.

- Class II streams are often key habitat for various amphibians, including uncommon species such as the tailed frog (Ascaphus truei). This suggests that Class II streams deserve as much protection as Class I streams or at least a RMZ based on site-specific tree height.

GFC-31 CON.

• For Class III streams the RMZ is largely non-existent or affords little protection except on really steep (50%+) slopes. These streams in fact need considerable protection. Most contain at least some specialized aquatic invertebrates and amphibians, They also can be major contributors of silt and other debris into streams. Given the potential for Class III streams to affect the habitat for coho salmon spawning and rearing downstream, they need full protection from activity likely to increase erosion. The EIS/R should be revised to reflect these significant impacts, mitigations should be added, and the document should be recirculated for public review.		GEC-31 CON.
Statement that HCP is consistent with marbled Murrelet Recovery Plan (MMRP) because of reserve is incorrect. Reserve is not part of HCP.	2-61	GEC-32
Short- term significant impacts to marbled murrelet must be considered significant under CEQA. Also, as discussed above, It is in error to call 10-30 years of impacts "short-term"; these impacts are clearly long term with respect to the life cycle of the species. In addition, the "trends" approach to significance determination used in this evaluation does not comply with CEQA and NEPA requirements that impact significance be evaluated in terms of both short and long-term impacts. Therefore long-term impacts also are significant under CEQA and NEPA.	2-61	GEC-33
Discussion of spotted owl take is incorrect. Loss of 33% of spotted owls in the area clearly constitutes a take, incidental or otherwise. This take is unmitigated within the life cycle of the species, and therefore constitutes a significant impact under both CEQA and NEPA. See also comments by Joyce Kadoch, spotted owl expert. Ms. Kadoch has noted the following errors in the HCP which are reflected in the EIS/R: • Calculation errors indicating that PALCO will be managing for less than 67% of spotted owls; • Flawed owl survey methodology, including wrong time of day of surveys;	2-62, 2-65	GEC-34

• Lack of evidence or studies to support PALCO's assertion as to the actual minimum viable population of spotted owls; • Possibly erroneous HCP conclusions regarding NSO habitat and diet requirements based on outdated literature, and which are counter to current literature on the subject; • Lack of adequate study to support owl home range size used in HCP; • Lack of consideration of clearly significant impacts on owl population viability resulting from loss of 50 and 85%, of high and medium quality nesting habitat, respectively, and 50% of foraging habitat in the first 20 years of the plan, and erroneous assumption of mitigation by replacing these with an increase of 20% in low quality nesting habitat. • Unmitigated impacts of no limitation on spotted owl take after the HCP's first 5 years; • Impacts of lack of adequate LSH habitat preservation; • Inappropriateness of young forest for juvenile spotted owl dispersion; • The HCP's lack of specific focus on mitigation for owls. Ms. Kadoch's detailed comments on these issues have been submitted to the USFWS with respect to the HCP, and are hereby incorporated by reference. In addition, comments by Mr. Peter Carlson and Dr. Alan Franklin have been submitted to the USFWS (under separate cover) on the inadequacy of the HCP and EIS/R's owl analyses. Those comments, incorporated herein by reference, indicate that the EIR/S assessment of owl impacts is fatally flawed. Please incorporate these additional studies into the spotted owl analysis and correct all findings accordingly.		GEC-34 CON.
Loss of 177 to 237 murrelets is clearly a significant impact under both CEQA and NEPA. (For example, see CEQA Appendix G,	2-64	GEC-35

Item XVII(a) "Does the project....reduce the number or restrict the range of a rare or endangered plant or animal...".)		GEC-35 con.
Will water quality improve in the short- and long-term over existing conditions, or only compared with future logging without the HCP? Revise discussion to use existing conditions on the ground as baseline.	2-66 (2.6.5.2)	GEC-36
Will aquatic habitat improve in the short- and long-term over existing conditions, or only compared with future logging without the HCP? Revise discussion to address existing conditions as baseline. Please incorporate and respond to the findings of Dr. George Pess, submitted under separate cover and hereby incorporated by reference, that the aquatic habitat analysis is severely flawed. Among these flaws are: • The ES/R concludes that future use of the Washington State Manual will suffice as mitigation for impacts of rock and gravel mining on aquatic habitat. However, in addition to the deferral of mitigation problem identified in Master Comment 1, above, that Manual includes no methodology for analyzing the effects of rock and gravel mining on aquatic habitat. • Poorly built or maintained roadways with high failure potential are not proposed for upgrading, leading to potentially significant cumulative sediment input and fisheries degradation. • The EIS/R does not provide mitigation for culverts that block fish passage, thus reducing the recovery of wild salmon stocks. • The Channel Migration Zones (CMZ) used as mitigation in the HCP and EIS/R are inconsistent with those recommended in the literature, and, in fact, are inadequate. (See also Dr. David Montgomery's comments). • The proposed stream buffer plan is inadequate and will result in adverse effects on coho production due to inadequate widths and LWD. The proposed restricted harvest band for Class I streams could be lost to erosion within 1 to 12 years, and in less than 4 years for Class II streams. In addition, removal of large trees along large streams that are already	2-67 and overall chapter 3.8.	GEC-37

depleted of LWD will have significant long-term impacts to coho habitat. • Removing all trees along Class III streams is likely to have a significant long-term effect on downstream coho habitat by reducing the amount of upstream sediment storage locations and subsequently increasing downstream sediment impacts. • The EIS/R mitigation incorrectly assumes that the Washington State watershed analysis method will lead to watershed-specific prescriptions. According to Dr. Pess, an author of that method, it likely will not, and it is likely that future land management will not result in the maintenance and enhancement of aquatic habitat. The EIS/R impact assessment and conclusions should be revised accordingly. • The lack of a method to identify the effect of road-building on peak flows, and subsequent effects on stream channels, fish habitat, and fish production can result in significant long-term cumulative adverse effects to coho salmon. • The HCP's LDW targets (used as mitigation in the EIS/R) fail to include a goal for functioning LWD. This is likely to result in significant cumulative adverse effects. • The HCP "mitigation" goal of 6 channel widths per pool establishes a standard that maintains stream channels in a degraded condition, and is likely to significantly reduce coho spawning utilization. • The HCP's likely maintenance of current landslide and sediment production rates will continue to result in significant adverse effects to coho habitat. These comments indicate that the EIS/R's conclusions regarding fisheries impacts are fatally flawed. Please revise the findings accordingly, add mitigation, and recirculate the document.		GEC-37 con
Provision requiring cessation of road use when turbidity in streams is visible does not mitigate impact because the impact has already occurred prior to implementation of mitigation. Please revise to provide a mitigation that prevents the impact.	2-68	GEC-38

Given the EIS/R's role as an environmental protection document, please explain how "moderate" sedimentation over 150,000+ acres and over 1,000 miles of stream channel can reasonably not be considered a significant impact. Please revise standards of significance and impact conclusions to reflect purpose of document. The comments of Dr. David Montgomery, sedimentation expert indicate that the EIS/R's sediment analysis is fatally flawed. Those comments, submitted under separate cover and hereby incorporated by reference, indicate, among other points, that: • Lack of riparian protection for headwaters channels will result in continued delivery of high sediment loads from upstream that will continue to degrade downstream conditions. • Narrow no-cut buffers on Class I and II streams will be inadequate for maintenance of riparian functions. • Landslide hazards are understated, and, even with proposed landslide hazard mitigation, the project will result in continued elevation of landsliding at rates well above background. • The HCP's calculated "disturbance index" is unsupported by even PALCO's own empirical data, as well as by scientific evidence. • The watersheds identified in the HCP as having high risk in one or more categories (on HCP Part H, Table 3) are averaged down to "moderate" risk for the EIS/R. This averaging is incorrect, as, in order to make a conservative assessment required by CEQA and NEPA, the highest risk in any category should define the overall risk. • The HCP permits PALCO to reserve the right to continue practices that are shown at a future date to be environmentally damaging if such practices fall under the pre-defined "maximum protection". This undermines mitigation assumed in the EIS/R to be afforded by monitoring and adaptive management.	2-68 and overall chapter s 3.4, 3.5, and 3.6

GEC-39

• HCP estimates of logging-related landslides are substantially understated, thereby skewing the EIS/R analysis. These comments indicate that the EIS/R's conclusions regarding sedimentation, slope stability, and fisheries impacts are fatally flawed. Please revise the findings accordingly, add mitigation, and recirculate the document.		GEC-39 con.
Top of 2nd column. Although effects may be acceptable within the context of the HCP, as addressed in preceding comments, they are still significant per standard CEQA and NEPA criteria of significance. Please revise this discussion to clearly differentiate between HCP compliance and NEPA/CEQA significance.	2-74	GEC-40
Section 2.9.3.3; 2.9.3.4 Proposed monitoring does not mitigate impacts of logging. See Master Comment #1, above. Please provide concrete performance standards for each species addressed in these discussions. If that is not possible, impacts to these species must be considered significant and unmitigable.	2-77 through 2-79	GEC-41
Air quality analysis fails to include continued operation of PALCO lumber mills associated with this THP. Please add this information to both the project and cumulative air quality impact assessments.	3.3 general	GEC-42
Please add dust impacts of gravel mining and slash burning to fugitive dust emissions calculations. Failure to do so constitutes improper piecemealing of impacts.	3.3-6	GEC-43
Project logging still contributes to cumulative exceedences of particulate standards, even if slightly reduced from present levels. Therefore, cumulative air quality impacts must be considered significant. Please revise text to reflect this.	3.3-8	GEC-44
Is existing high sediment loading in Eel, Mattole, and Van Duzen Rivers watershed a result of past and current logging under FPRs? If so, this needs to be added to the baseline for the purposes of cumulative impact analysis.	3.4-9	GEC-45

How will sediments resulting from logging permitted under the HCP/SYP comply/conflict with TMDLs? Potential nonconformance with CWA requirements would be a significant impact under CEQA and NEPA (see CEQA Guidelines Appendix G, item VII(a) and NEPA Section 1502.16(c)).	3.4-13	GEC-46
Were exceedences of maximum weekly average temperature (MWAT) values related to past and present logging activities? This information is necessary to address cumulative impacts.	3.4-15	GEC-47
Discussion of flow impacts on this page is too general to provide meaningful data. Please provide percentage range of flow increases. What sorts of increases have likely occurred in Watershed Assessment Areas (WAA's) and Hydrologic Units (HU's)?	3.4-22	GEC-48
Doesn't water lost as peak runoff from unvegetated areas in winter as well as increased evaporation from clearcut areas offset gains in infiltration due to reduced evapotranspiration?	3.4-23	GEC-49
Describe temperatures on streams on PALCO lands. How have these been influenced by past logging on these lands. What has been the increase in temperatures on PALCO streams compared with natural conditions. This information is essential to determining cumulative effects of past, present and reasonably foreseeable future logging proposed in the SYP and ITP.	3.4-24, 25	GEC-50
Herbicide BMPs do not necessarily result in compliance with concentration limits. Please describe the maximum concentration levels (MCLs) and any exceedences of them.	3.4-27	GEC-51
All of the discussions of channel morphology factors need to be augmented to address the impacts of past logging on these factors.	3.4-28 through 3.4-32	GEC-52
Please provide a scientific rationale for the use of 1000 feet of stream erosion as the significance criterion. Why not 100 feet? 500 feet? Why not a PALCO-wide total of 1000 feet? If there are several 900-foot erosion lengths disconnected by small, uneroded areas, why isn't that significant? Please revise this criterion to protect the environment per CEQA and NEPA requirements. Please revise all conclusions accordingly.	3.4-52	GEC-53

Statement that THP requirements will mitigate most significant impacts to a level of less than significance does not provide any data or analysis upon which to base conclusions of no significance regarding this particular impact. Please replace this unsupported blanket statement with a detailed analysis as to exactly how FPRs mitigate the specific impacts in question to "less than significant" levels. Use CEQA Appendix G significance criteria. Also take into account NMFS's determinations that FPR's are frequently inadequate to protect resources, and consider past on-the-ground impacts under FPR practices in supporting your conclusions.	3.4-37, 40, 42, 45, 50 (and all similar statements in EIS/R)	GEC-54
Is this impact significant for the various alternatives? Why?	3.4-38, 39	GEC-55
Last ten lines are gibberish. What's the impact and why?	3.4-41	GEC-56
Deferral of grazing analysis to future watershed analyses is impermissible under CEQA and NEPA. See Master Comment #1.	3.4-42	GEC-57
Thresholds of significance for sediment should be based not on management measures that reduce sediment, but on the anticipated amounts of residual sediment that will continue to be generated under the SYP with the HCP. If residual sedimentation may affect stream morphology or biological resources, impact is significant, even if sedimentation is reduced compared with non-HCP conditions.	3.4-45	GEC-58
See Master Comment #1. Agreement to develop a process to address emergencies does not constitute mitigation per CEQA or NEPA. It is improper deferral of mitigation to future study. The process must be developed and evaluated in the EIS/R. Therefore this impact cannot be considered mitigated to less than significant in this EIS/R.	3.4-47	GEC-59
Exceedences of sediment thresholds until rehabilitation measures are implemented is a significant impact unless mitigation is added prohibiting logging until rehabilitation is complete. Please revise significance conclusions to reflect this impact, or add mitigation to eliminate it.	3.4-47	GEC-60
See Master Comment #2. Wrong baseline is used here. Continued logging would still generate significant quantities of sediment, therefore not beneficial. Revise.	3.4-49	GEC-61

First column. See Master Comment #4. Short-term (i.e. 1-10+ years) impact is significant, therefore these impacts are significant per CEQA and NEPA.	3.4-55	GEC-62
See Master Comment #1. Last full paragraph, first column –improperly deferred mitigation.	3.4-57	GEC-63
Cumulative impacts discussion is inadequate because it uses improper baseline and therefore fails to address project area's continued contribution of large amounts of sediments to cumulative sediment problems in regional watershed drainages. The large-scale logging proposed in the SYP/HCP does not result in "beneficial" effects on sediment input, just less sediment per acre than under past practices.	Section 3.4.3.10	GEC-64
What is the significance of acknowledged cumulative impacts on aquatic and hydrologic systems of Mattole River?	3.4-64	GEC-65
2nd column. What does any of this have to do with geology?	3.5-9	GEC-66
What has been the past contribution of logging to slope instability and landsliding in the project area?	Section 3.6	GEC-67
Given the long-term weakness of proposed road rock as determined by the CDMG, why does this document assume that such rocking would eliminate dust and erosion problems in the 50 year HCP life? A cautionary approach supported by facts would use the opposite assumption. Please revise all analyses and conclusions to reflect the low abrasion resistance of these rocks.	3.6-17	GEC-68
If a 300-foot RMZ is required to filter clay-sized particles, then conclusions regarding mitigation effectiveness of much smaller buffers proposed in HCP are in error. Please revise all conclusions accordingly, taking into account the document's environmental protection purpose as stated in CEQA Sections 21000 and 21001 and NEPA section 4331.	3.6-21	GEC-69
100-foot buffers proposed on this page conflict with 300-foot buffers noted as possibly necessary on previous page. Please revise this discussion and conclusions to reflect environmental protection purpose of this document.	3.6-22	GEC-70

ITP, as opposed to conceptual HCP "benefits". Use additive rather than comparative approach for correct cumulative impact assessment.		GEC-71
Allowing harvest in wetlands "when explained or justified" does not mitigate for wetlands impacts. In addition, this rule does not discuss when harvest in wetlands could be explained or justified. Therefore, significant impacts would result under these rules.	3.7-7	GEC-72
Threshold of significance is too vague. What is "unreasonable" degradation of beneficial uses? Who determines what is unreasonable? What protection is granted by protection "if possible"? Replace with no net loss of acreage or function threshold consistent with federal requirements.	3.7-8	GEC-73
2nd column. Please note that "significant localized adverse effects" are still considered significant impacts under both CEQA and NEPA, especially in light of the fact that "localized" in the context of the 200,000+ acre project site, may be tens or hundreds of acres. Revise all impacts analyses in this chapter accordingly, using revised threshold as suggested in previous comment.	3.7-8 (and all other similar uses in EIS/R)	GEC-74
See Master Comment #9. Evaluation is not mitigation.	3.7-9	GEC-75
Although PALCO's riparian areas may meet shade requirements by end of HCP, short-term impacts are still significant. Please correct the conclusions.	3.7-58	GEC-76
Conclusion that THPs would reduce effect to less than significant level (p. 61) is in direct conflict with analysis stating that under current FPRs only 23% of full LWD recruitment occurs, resulting in significant stream habitat degradation (p. 60). Please delete boilerplate language re THPs and replace with results of actual analysis.	3.7-60, 61	GEC-77
Why isn't 300-foot buffer used, as identified as potentially required to filter clay particles on p. 3.6-21 of this document?	3.7-71	GEC-78
Are the impacts described on these pages for Alt. 2 significant in the short- or long- term for Class I, II, or III streams? If not, why?	3.7-72, 73, 76, 77, 78, 79, 82, 83, 85	GEC-79
The cumulative impacts assessment uses wrong approach. See	3.7-87 through 92	GEC-80

Master Comment #7. Please revise.		GEC-80CON.
This and other stream analyses use the PALCO GIS figure of 576 miles of Class III streams. However, this document states that, in fact, class III stream mileage may exceed 3,200 miles. This is further compounded by the freshwater creek drainage study that found 78% more Class III streams than were mapped (DEIS/R, p. 3.9-29). The use of the 576-acre estimate may severely underestimate actual affected mileage, thereby underestimating impacts. A realistic estimate of Class III stream mileage must be determined and included in all relevant EIS/R analyses.	3.8-1, 3.8-5, 3.8-10, 3.10-24	GEC-81
Class II Grand Total of 29.2 miles is wrong.	3.8-5	GEC-82
Has PALCO's data regarding water quality and species been independently verified by EIS/R authors? If not, how was it determined to be reliable for use in this document?	3.8-9, 3.10-53	GEC-83
2nd column acknowledges that "it is possible that current populations of priority fish species in some or all portions of the affected drainages could continue at low levels or decrease further, perhaps to levels that could not sustain the populations". Yet the fisheries impact analysis for Alternative 2 concludes "However, on a landscape scale over the 50 year period of the HCP, the interim and default prescriptions would result in effects that are less than significant." It is inappropriate to talk about long-term habitat enhancement if, in the life cycle of the fish, the short-term effects would further diminish or eliminate them. The conclusion is entirely unsupported by the analysis and the impact should be revised to read "significant". In addition, all analyses of significance of impacts on fish and wildlife should be revised to consider impacts on the species' life cycles to be significant.	3.8-31, 3.8-40, and all fish and wildlife impacts assessments,	GEC-84
Use of trends as evaluation and significance criteria must be supplemented with the use of residual impacts. That is, even if a trend is improving, if the residual effects of logging are still detrimental to a species, that residual effect must be the determining factor in evaluating significance. All impact assessment based on trends must be revised to reflect actual on-the-ground impacts, not just trends. See also Master Comment #4.	3.8-32, 33, 34, 43, 47, 53	GEC-85
See master Comment #7. Past effects of logging on aquatic	3.8-33, 3.8-50	GEC-86

conditions have not been factored into cumulative impact assessment. Please revise to account for past impacts, as required by both CEQA and NEPA.		GEC-86 con.
Why is 10 years considered short-term when steelhead, for example, have life cycles of 3-4 years? Please redefine short and long term on the basis of species affected and revise conclusions accordingly.	3.8-34	GEC-87
100-year period for LWD recruitment to achieve desired levels would result in significant impacts during the HCP life. Therefore this would result in significant unavoidable impacts under Alternative 2.	3.8-40	GEC-88
Why are LWD impacts excluded from this table? Please add them.	3.8-41	GEC-89
See Master Comment #1. Future watershed analyses are impermissible deferral of study as mitigation under CEQA.	3.8-42	GEC-90
See Master Comment #4. Short-term (up to 10 year) impacts are significant per CEQA and NEPA.	3.8-42	GEC-91
The "landscape-level" impact assessment is not appropriate when fish are not mobile across the landscape. This is confirmed by discussion on first paragraph p. 3.8-51. The residual impact on each stream that may be degraded over the short- and long-term should be the basis for this impact assessment.	3.8-43, 51	GEC-92
THPs do not provide benefits to priority fish species; they just lower the level of additional impacts. Wrong baseline is used, as addressed in Master Comment #2, resulting in erroneous impact analysis.	3.8-52	GEC-93
In discussing effectiveness of HCP and THP mitigations, please address PALCO's history of noncompliance with existing FPRs. CEQA requires a reasonable worst case analysis. Please provide evidence that PALCO can reasonably be expected to follow HCP requirements if it has not done so in the past, or revise conclusions to reflect actual historic implementation success/failure.	general	GEC-94
First paragraph under section 3.9.1.1 appears to conflict with first full paragraph on second column on p. 3.4-15.	3.9-1/3.4-15	GEC-95

Conclusions of no significant impact on vegetation communities are entirely unsupported by analyses indicating 40% loss of old growth redwoods, and similar or greater loss for other LSH. Please revise conclusion to match analysis.	3.9-30, 31. 32	GEC-96
Recommending future surveys as mitigation for rare and uncommon flora and unspecified modifications to THPs do not assure mitigation for these species, and are not considered mitigation under CEQA (See Master Comment #1.). Either require avoidance and buffers after surveys, or call out the impact as significant.	3.9-46	GEC-97
Conclusions that Alternatives 2 and 2a do not have any significant effects on commercial timber are contradicted by the tables and impact analyses which state that these alternative harvest plans may not, in fact, be sustainable (e.g. p. 3.9-24). Therefore this impact should be considered significant.	3.9-46	GEC-98
Past effects of logging on interior forests as described at the bottom of the first column on this page must be factored into cumulative impacts assessment (see Master Comment #7).	3.10-27	GEC-99
Buffer discussion states that various studies indicate adequate buffers to range from 600 to 1200 feet. Why then does the EIS/R, which is supposed to assist in environmental protection, use a 400-foot buffer for interior forest effects?	3.10-28	GEC-100
The purple martin analysis may substantially underestimate priority habitat because of previously described underestimation of mileage of Class III streams. Please correct the analysis with accurate estimates of Class III stream mileage, as this mileage is essential to assessing impacts.	3.10-76	GEC-101
Analysis of project impacts on the 12 bird species covered under "List A" is inadequate. These inadequacies are detailed in HCP comment letters prepared by Richard Erickson and Roger Harris of LSA Associates, Inc., which are hereby incorporated by reference. In summary, these deficiencies include: • Analysis of habitat use by neotropical migratory birds (p. 3.10-86) is flawed due to errors in local fauna list.	3.10-86, 88, 137, 141,	GEC-102

- All List A species are to be considered "Endangered, Rare or Threatened with respect to CEQA." "Setting" sections are devoted to all of these species, but coverage for impacts and (especially) mitigation is deficient for the ten unlisted species. Mitigation for all ten of these species from the SYP/HCP is superficially treated in Appendix Table M-2, but there is no specific discussion of these species under Environmental Effects (Section 3.10.2). Several appear only in Table 3.10-9 (Thresholds of Significance and Comparison of Effects of the Alternatives on Wildlife Resources), where they are relegated to mere footnotes.

- On pages 3.10-137 and 3.10-141 respectively, note that mitigation measures for the Aleutian Canada goose (*Branta canadensis leucopareia*) and western little willow flycatcher (*Empidonax traillii brewsteri*) are said to be included in Appendix Table M-2, yet there is no mention of either species in Appendix Table M-2.)

- The statement under "Thresholds of Significance" (3.10-88) that "If this proposed mitigation minimizes or mitigates those effects, they are considered to be less than significant," is far too generous to the applicant. The effects of various mitigation measures must be evaluated on a case by case basis, and may or may not be sufficient to reduce impacts to a level less than significant.

- Page 3.10-20 states that "As part of developing the HCP/SYP analyzed in this document, PALCO conducted extensive species-specific and multi-species monitoring studies on its lands, particularly for species with special federal or state status." This appears to be a gross overstatement. Insufficient information is available to justify considering a number of species as "Covered" under the SYP/HCP. Sufficient information on the water-associated birds may not be available and information on the others, although possibly obtainable or even in existence, is not well presented in the document. For example, what are these species' limiting factors in the project area, and what data are there to suggest that the measures in the SYP/HCP and EIR/EIS will be enough to safeguard these species in the event that they become endangered by potentially unforeseen forces?

EEC-102 con.

• Without exception, the EIS/EIR relies on the measures identified in the SYP/HCP as mitigation for potential impacts to the species under consideration here. The policy concerning snags and downed logs is central to the SYP/HCP mitigation plan. Numerous inadequacies the mitigation plans for the species under consideration here, and on the snag policy in particular, are detailed in our comments on the SYP/HCP (see Erickson/Harris HCP letter general comment 9 and concluding comment 5). • The EIS/EIR relies on the monitoring scheme outlined in the SYP/HCP to gauge the success of the SYP/HCP in preserving viable populations of List A species in the project area. As noted in Erickson/Harris comments on the SYP/HCP (general comment 6), the monitoring plan is insufficient to achieve this goal. • Guarantees for the resources required to implement the SYP/HCP are inadequate, resulting in insufficient mitigation (cf. Erickson/Harris SYP/HCP concluding comment 1). • Inadequate analyses under CEQA for reduction in the amount of late seral forest and hardwood forest, impacts on the pileated woodpecker and purple martin, potential impacts on the bank swallow, and potential noise impacts (cf. Erickson/Harris SYP/HCP concluding comment 4).		GEC-102 con.
The Migratory Bird Treaty Act does not permit any take of birds under its purview. Please describe compliance of proposed THP with MBTA for MBTA-covered species in the project area.	general	GEC-103
Thresholds of significance described for wildlife are not in compliance with CEQA and NEPA requirements. First, contrary to the text on p. 3.10-88 significance must be judged prior to mitigation, as mitigation cannot be assumed at the EIS/R stage. Post-mitigation significance also must be discussed. Second, mitigation "minimizing" an impact may still result in a significant impact. An impact may be minimized, but may still be significant. In this case, it would be considered significant and unavoidable. The significance thresholds of a wildlife population dropping below self-sustaining levels or a threat to continued existence of a	3.10-88 through 3.10-94, associated impacts discussion in this section	GEC-104

population are significant, but this threshold fails to recognize the much more environmentally protective CEQA thresholds described in Master Comment 6. Note specifically, CEQA Mandatory Findings of Significance for loss of rare or endangered species (14Cal. Code Regs. 15065). Please revise this threshold to consider as significant any loss of endangered species or their habitat, in compliance with CEQA mandatory findings. Because of these flawed thresholds, the impact assessment on Table 3.10-9 substantially understates the potential project impacts on wildlife. Please revise all impact assessments included in Table 3.10-9 and accompanying text in compliance with CEQA guidelines and case law regarding wildlife impacts. See also Master Comment # 6.		GEC-105
Table 3.10-9 Marbled Murrelet analysis: Loss of habitat for hundreds of Murrelets is a significant impact in both the short- and long-term per Master Comment # 6 discussion and CEQA Mandatory Findings of Significance. Analysis is skewed due to use of incorrect baseline and significance criteria. Revise.	3.10-91	GEC-106
Table 3.10-9 Northern Spotted Owl analysis: Loss of habitat for hundreds of owls is a significant impact in both the short- and long-term per Master Comment # 6 discussion and CEQA Mandatory Findings of Significance. Analysis is skewed due to use of incorrect baseline and significance criteria. Revise.	3.10-92	GEC-107
Table 3.10-9 Other LSH associates analysis: Loss of up to 39,000 thousands of acres (and 50 to 68% loss of LSH patches of over 1000 acres) of LSH habitat is a significant impact in both the short- and long-term per Master Comment # 6 discussion. Analysis is skewed due to use of incorrect baseline and significance criteria. Revise.	3.10-93	GEC-108
Table 3.10-9 Wetland/Riparian Species analysis: Loss of substantial acreage of wetlands and riparian habitat is a significant impact in both the short- and long-term per Master Comment # 6 discussion. Analysis is skewed due to use of incorrect baseline and significance criteria. Revise.	3.10-93	GEC-109
Qualitative last sentence on first column regarding decrease of LSH habitat is contradicted by numerical data on table 3.10-10.	3.10-100	GEC-110

Alternative 1: See Master Comment #3. Boilerplate comment that most environmental effects of individual THPS can be expected to be mitigated through implementation of CEQA No Project Alternative is based on no data, no analysis, and constitutes impermissible deferral of mitigation. Remove and reanalyze.	3.10-101, 111 (and all similar statements in EIS/R)	GEC-111
Conclusions regarding level of significance of habitat fragmentation impact after mitigation on this page do not follow from analysis on p. 3.10-112 (which incorporates HCP "mitigation"). This deficiency is exemplified by the discussion on p. 3.10-127, which states that "...fragmentation of uncut and residual old growth (including suitable and possibly suitable marbled murrelet habitat) negatively affecting marbled murrelets would increase under Alternative 2 compared to existing conditions, and would be greater under this alternative than under Alternatives 1, 3, and 4". Revise conclusion for consistency with analysis.	3.10-116, 3.10-112, 3.10-127	GEC-112
Consultation with CDFG and USFWS re spotted owls and implementation of a vague "no-take management" after loss of 33% of all spotted owls does not provide any actual mitigation.	3.10-115, 116	GEC-113
Last paragraph on first column – take of these priority species is a significant impact under CEQA Mandatory Findings of Significance. (See also Master Comment #6.)	3.10-119	GEC-114
See Master Comment #6. Threshold of significance for riparian associates loss is in conflict with CEQA standards.	3.10-153	GEC-115
See comments of bird biologist Peter Bloom re osprey, golden eagle, sharp-shinned hawk, and Coopers hawk, which have been submitted to the USFWS under separate cover and are hereby incorporated by reference. In summary, these comments are: • The HCP (and EIS/R) conclusions re osprey cannot be supported in the absence of a survey which documents the distribution and productivity of the significant onsite osprey population, development of an osprey management plan, and biennial territory monitoring. Please add this survey and plan to the documents.	3.10-150, 153, 143	GEC-116

• Sharp-shinned and Cooper's Hawk: The HCP and EIS/R provide almost no information on the abundance, distribution, and biology of these two species on PL lands. Hence, it is impossible to adequately assess the direct and cumulative impacts of the HCP and SYP on these species. In addition, there is inadequate data to justify the generalized conclusion in the EIS/R regarding the adequacy of proposed mitigation and level of significance remaining. Please add information and revise analysis and mitigation as appropriate. • Golden Eagle: Conclusions that "None of the alternatives would be expected to negatively directly or indirectly affect the golden eagle..." are unsupported by available background information. Baseline information is lacking making it impossible to objectively analyze project impacts on these species. Based on eagle ranges, there could be 9 pair, or more, golden eagles on the PALCO property that would be adversely affected by the project. According to Mr. Bloom's report, it is highly unlikely that no golden eagles nest on the property. The EIR/S must either conduct additional studies as appropriate, or revise conclusions to err on the side of caution, per CEQA and NEPA intent.		GEC-116 con.
See Master Comment #6. Threshold of significance for LSH associates loss is in conflict with CEQA standards.	3.10-156	GEC-117
Cumulative impacts discussion is flawed as described in Master Comment #7	3.10-157-161	GEC-118
The thresholds of significance discussion identifies separate thresholds for plan compliance and land use compatibility. However, the base land use compatibility assessment is based solely on plan compliance. This is inappropriate, as "land use compatibility" and "plan compliance" are separate potential impacts per CEQA Appendix G. Please revise criteria and analysis accordingly.	3.11-5	GEC-119
Project compliance/consistency with other County General Plan environmental policies (other than land use) also needs to be addressed in this document per CEQA Guidelines Appendix G.	3.11-15, 17	GEC-120

The cumulative impacts analysis fails entirely to address project plus cumulative land use impacts throughout the County. Please describe the effects of past, present, and reasonably foreseeable logging-related land uses on the County's land use policies, compatibility, and compliance with other County, state, and federal land use and environmental policies	3.11-10, 11	GEC-121
Discussion of AB1986 has been omitted entirely from this land use section.	3.11-general	GEC-122
Transportation is the only resource topic which explicitly calls out CEQA Appendix G threshold criteria. Good. Revise all other sections to do the same.	3.12-10	GEC-123
This section describes PALCO's operations and precautions with respect to traffic but fails entirely to provide any assessment of project impact to safety, road conditions, or traffic flow. Please revise with discussions of problem intersections, safety impacts, and road impacts, for both project and cumulative conditions.	3.12-13 through 20	GEC-124
Also truck trips were apparently counted as the equivalent of one passenger car trip when they should have been counted as two/three passenger car trips. Please revise to correct.	3.12-13 through 20	GEC-125
Note that CEQA requires that any potentially significant secondary effects on the physical environment resulting from socioeconomic changes must be assessed in the EIR. Please revise discussion accordingly.	3.13-20	GEC-126
The document's claim that identifying SYP timber harvest volumes beyond the first ten years is speculative and therefore cannot be evaluated in the EIS/R is incorrect. The SYP volumes are presented in detail and evaluated programmatically in many other sections of the document, for example, Section 3.9, Vegetation and Timber Resources (see detailed yield data on Table 3.9-1). In addition, the HCP is evaluated over a 50-year period in this document, and the impacts of the HCP are, in fact, impacts of implementing the SYP over the 50-year life of the HCP. This is far greater than the state's arbitrary 10-year limit of analysis. Therefore this section should be revised to address the logging volumes called out in the SYP over the life of that plan.	3.13-21	GEC-127

mitigation measures required under future THP provisions would not likely prevent "the probable disruption of cultural resources". Therefore program-level reconnaissance surveys of these resources should be included in the EIS/R and likely impacts assessed.		GEC-127 con.
Recordation of cultural resources to be destroyed does not necessarily constitute mitigation of impacts to less than significant under CEQA (see League for Protection of Oakland's Architectural and Historic Resources v. City of Oakland (1997) 52 Cal. App. 4th 896) Therefore, mitigation must be altered to full avoidance of any such resources or significant impacts must be found.	3.15-general	GEC-128
Conclusion that Alternatives 2, 3 and 4 are expected to result in "some indirect benefits to cultural resources" does not compare impacts to existing conditions. Please revise to focus on loss of resources under SYP. See Master Comment #2.	3.15-19	GEC-129
Use of "Maximum Modification Visual Quality Objective (VQO)" as the criterion of significance fails entirely to meet environmental protection purpose of CEQA. It allows major degradation of visual quality on hundreds of thousands of acres. Partial retention would be the most lenient criterion that would still afford any environmental protection. See Master Comment #6.	3.16-17	GEC-130
Cumulative analysis is flawed as described in Master Comment # 7.	3.16-25	GEC-131
Text on pp. 3.17-3 through 3.17-5 identifies what appear to be potentially significant impacts to recreational experiences of users of Grizzly Flats State Park and Humboldt Redwoods State Park per the section's stated thresholds of significance, yet table 3.17-1 (which contains numerous typographical errors) places forth an entirely unsupported conclusion of less-than-significant impact. Please correct table to reflect analysis.	3.17-3 through 5	GEC-132
Cumulative impacts assessment fails to address impacts of cumulative logging in region on the affected state parks. Therefore it is deficient per Master Comment #7.	3.17-7	GEC-133
Because no overarching federal standards exist for significance of	3.18-1	GEC-134

impacts to Wild and Scenic Rivers, the analysis fails entirely to assess significance of the project. The EIS/R has the responsibility to develop reasonable thresholds and conduct an assessment of impact significance. Please revise to include impacts and significance analyses.		GEC-134 con.
Please provide evidence to support claim that future application of FPRs will maintain remarkable values of potentially affected Wild and Scenic Rivers. Describe consistency of clearcutting with management plans for each of the affected rivers.	3.18- general	GEC-135
Cumulative impacts assessment fails to address impacts of cumulative logging activities in region on the affected rivers. Therefore it is deficient per Master Comment #7.	3.18-3	GEC-136
The Environmental Justice discussion fails entirely to address any disproportionate impacts of project activities on low income or minority populations, as required by the Executive Order.	3.22-4	GEC-137

Richard Grassetti

PRINCIPAL

Expertise

- CEQA/NEPA Environmental Assessment
- Project Management
- Geologic and Hydrologic Analysis

Principal Professional Responsibilities

Mr. Grassetti is an environmental planner with over 15 years of experience in environmental impact analysis, hydrologic and geologic assessments, project management, and regulatory compliance. He has managed the preparation of over 50 CEQA and NEPA documents, as well as numerous local agency planning and permitting documents. Mr. Grassetti has prepared over 200 hydrologic, geologic, and other technical analyses for California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA). He has analyzed a wide range of projects including residential developments, waste management projects, mixed-use developments, infrastructure improvements, energy development, military base reuse projects, and recreational facilities throughout the western US. Mr. Grassetti is a recognized expert on the CEQA and NEPA processes, and has served as an expert witness on CEQA and planning issues in California courts. Mr. Grassetti regularly conducts peer review and QC/QA for all types of environmental impact analyses, and works frequently with public agencies, citizens groups, and applicants. In addition to his consulting practice, Mr. Grassetti is a lecturer in environmental impact assessment at California State University, Hayward.

Professional Services

- Management and preparation of all types of environmental impact assessment documentation for public agencies, applicants, citizens groups, and attorneys
- Assisting clients in CEQA and NEPA process compliance
- Preparation of hydrologic and geologic analyses for EIRs and EISs
- Peer review of environmental documents for technical adequacy and regulatory compliance
- Expert witness services

- Preparation of project feasibility, opportunities, and constraints analyses, and mitigation monitoring and reporting plans

Education

University of Oregon, Eugene, Department of Geography, MA, Geography (Emphasis on Fluvial Geomorphology and Water Resources Planning), 1981.

University of California, Berkeley, Department of Geography, BA., Physical Geography, 1978.

Professional Experience

1992-Present	Principal, GECo Environmental Consulting, Berkeley, Ca.
1994-Present	Lecturer, Department of Geography and Environmental Studies, California State University, Hayward, Ca.
1988-1992	Environmental Group Co-Manager/ Senior Project Manager, LSA Associates, Inc. Richmond, Ca.
1987-1988	Independent Environmental Consultant, Berkeley, Ca.
1986-1987	Environmental/Urban Planner, City of Richmond, Ca.
1982-1986	Senior Technical Associate - Hydrology and Geology - Environmental Science Associates, Inc. San Francisco, Ca.
1979-1981	Graduate Teaching Fellow, Department of Geography, University of Oregon, Eugene, Or.
1978	Intern, California Division of Mines and Geology, San Francisco, Ca.

Professional Affiliations and Certifications

Chapter Director, Association of Environmental Professionals, San Francisco Bay Chapter (1993-1997)

Member, International Association for Impact Assessment

Publications and Presentations

Grassetti, R. A., N. Dennis, and R. Odland. *"An Analytical Framework for Sustainable Development in EIA in the USA"*. Presentation at International Association for Impact Assessment Conference , Christchurch, New Zealand. April 1998.

Presenter, Basic and Advanced Sessions, Association of Environmental Professionals Annual CEQA Workshop, Los Angeles, CA. March 1995.

Grassetti, R. A. *"Ethics, Public Policy, and the Environmental Professional"*. Presentation at the Association of Environmental Professionals Annual Conference, San Diego, May, 1992.

Grassetti, R. A. *"Regulation and Development of Urban Area Wetlands in the United States: The San Francisco Bay Area Case Study"*. Water Quality Bulletin, United Nations/World Health Organization Collaborating Centre on Surface and Ground Water Quality, April 1989.

Grassetti, R. A. *"Cumulative Impacts Analysis, An Overview"*. Journal of Pesticide Reform, Fall 1986.

1986, 1987. Guest Lecturer, Environmental Studies Program, University of California, Berkeley.

1981. MA Thesis: *An Alternative Approach to Wild and Scenic River Classification,* University of Oregon.